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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/544,162	07/29/2005	Richard A. Steiner	122-115(US)	6434

21091 7590 01/26/2007
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EXAMINER

CRANE, DANIEL C

ART UNIT	PAPER NUMBER
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3725

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/544,162	Applicant(s) STEINER, RICHARD A.	
	Examiner Daniel C. Crane	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

REJECTION OF CLAIMS ON FORMAL MATTERS

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Depending the subject matter upon itself renders the features indefinite. Therefore, the scope of the claimed subject matter is indeterminate.

REJECTION OF CLAIMS OVER PRIOR ART

Claims 1-4, 6-8, 10, 11 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Demler (3,688,553). See Figures 7, 9 and 11 where the first jaw 21 and second jaw 21 cooperate with the surface 10 to define in the closed condition a cylindrical opening ("circle", column 4, lines 23-31). As clearly shown, the jaws 21 are toothless at the surface 26. As to claim 2, the above surfaces and below surfaces are in abutting relationship as shown in Figure 11. The structure of the tool limits the opening movement of the jaws and, thus, claim 8 is met by virtue of the structural limits of the tool. Sliding of the tool over the ring and tube would be inherent in the positioning of the tool jaws relative to the ring. "Gauging" is performed when the operator detects that the tool has been fully compressed, thus, indicating adequate crimping of the work piece. What constitutes "minimal imperfections" is open to broad interpretation. As to claim 13, the amount of force is dependent upon a number of factors, such as size of work piece, materials of work piece and amount of force desired to crimp the work piece. Accordingly, the skilled artisan operating the tool would, at some point, encompass the claimed force. As the work piece is being crimped, the work piece will automatically adjust itself within the openings of the jaws.

Claims 1-4 are further rejected under 35 U.S.C. 102(e) as being anticipated by Wagner (6,739,172). See Figures 1 and 2 and column 2, lines 41-51, where the jaws 1 and 2 in the closed position have circular opening. The abutting relationship of the jaws is shown and described as planar. The opening distance is adjustably limited by the drive system 51-53.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Whiting (256,525). The jaws are provided with cylindrical openings a, a that have first and second smooth surfaces above and first and second smooth surfaces below the cylindrical opening a, a.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Klein (2,327,650). See Figure 2 where the tool is shown to have a toothless first and second jaw with the jaws having an opening, when closed, with a cylindrical configuration. The openings 14, 15 and 16 are "substantially circular" holes (see page 2, column 1, lines 30-31).

Claims 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner (6,739,172). While Wagner does not indicate that plastic pipe is being crimped, it is clearly within the purview of the skilled artisan to have utilized Wagner's ring crimping process on plastic pipe, such as plastic fluid line pipes that are joined together by deformable metal rings. This is common in the plumbing art to join plastic pipes by deformable metal rings. Accordingly, it would have been obvious to the skilled artisan within this art having the benefit of Wagner's process to apply the process to plastic piping as well recognized in the art. As to claim 8, Wagner's tool is utilized as a "gauge" in the sense that removal of the jaws from the

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pipe will signal a gauging of the pipe to the operator. The leveraging of the jaws allows for less force needed to apply the required crimping features to the pipe. Clearly, any misalignment of the pipe and connector within the opening of the jaws will be corrected by the eventual closing of the circular surfaces of the jaws that gradually surround the pipe and connector.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Demler (3,688,553). While Demler shows that the ring 3 or 6 is positioned at the end of the pipe 4 or CM, it is the examiner's position that the position of the ring on the pipe (substrate) is dependent upon the use of the work piece (plumbing pipe) and does not affect the overall method of crimping a ring to a pipe. Accordingly, it would have been obvious to the skilled artisan at the time of the invention to have modified Demler's process by positioning the ring at any location on the pipe so as to facilitate use in any number of plumbing endeavors.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Demler (3,688,553) in view of either one of Beetz (6,289,712) or Haughian (5,289,712) or Wagner (6,739,172). Demler illustrates the basic claimed method of crimping a cylindrical ring around a cylindrical plastic pipe but does not show that the jaws of the crimping tool are in abutting relationship in a common plane. Anyone one of Beetz or Haughian or Wagner shows such a provision to be conventional in the crimping art, thus, simplifying the tool construction, limiting the jaws to two and facilitating crimping ease. It would have been obvious to the skilled artisan at the time of the invention to have modified Demler's process of crimping a ring around a

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plastic pipe by using a tool as shown by Beetz or Haughian or Wagner so as to simplify the tool by reducing the number of jaws while facilitating a proper crimp between the pipe and ring.

INDICATION OF ALLOWABLE SUBJECT MATTER

Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim 1 and intervening claim 4.

INQUIRIES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner D. Crane whose telephone number is **(571) 272-4516**. The examiner's office hours are 7:00 AM – 3:30 PM, Monday through Friday.

Documents related to the instant application may be submitted directly by facsimile transmission at all times. The Examiner's Fax number is **(571) 273-4516**. Applicant(s) is(are) reminded to clearly mark any transmission as "DRAFT" if it is **not** to be considered as an official response. The Office Facsimile Center number is **(571-273-8300)**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DCCrane
January 18, 2007

A handwritten signature in black ink, appearing to read 'Daniel C. Crane', with a large, stylized initial 'D'.

Daniel C. Crane
Primary Patent Examiner
Group Art Unit 3725